

What Is Claimed Is:

1. Apparatus for selectively coupling an analog telephone circuit to either a telephone network or an Internet telephony service, the apparatus comprising:
  - an interface adapted to be coupled to a PC;
  - a jack adapted to be coupled to the telephone network to pass analog signals to the telephone network;
  - a DTMF interface circuit adapted to be coupled to the analog telephone circuit; and
  - a switch coupled to the telephone, the switch having a first position wherein the telephone is coupled to the jack and a second position wherein the telephone is coupled to the interface, the switch moving between the first and second positions responsive to detection of a predetermined sequence of DTMF digits through the DTMF interface circuit.
2. The apparatus of claim 1 wherein the DTMF interface circuit further comprises a DTMF detection circuit.
3. The apparatus of claim 1 further comprising a subscriber line interface circuit, the subscriber line interface circuit coupled between the switch and the interface when the switch is in the second position.
4. The apparatus of claim 1 further comprising a hold circuit coupled between the jack and the interface.
5. The apparatus of claim 1 further comprising a ring detection circuit coupled between the

jack and the interface.

6. The apparatus of claim 1 further comprising an off-hook detection circuit coupled between the telephone and the interface.

7. The apparatus of claim 1 further comprising a modem detection circuit coupled between the jack and the interface.

8. The apparatus of claim 1 further comprising a call-waiting detection circuit coupled between the jack and the interface.

9. The apparatus of claim 1 further comprising a line detection circuit coupled between the jack and the interface.

10. The apparatus of claim 1 wherein the interface further comprises a microcontroller.

11. The apparatus of claim 1 further comprising circuitry for digitizing voice signals coupled to the interface.

12. The apparatus of claim 1 wherein the predetermined sequence of DTMF digits comprises one of the sequences selected from the group consisting of "##", "\*\*\*", "\*#" and "#\*".

13. The apparatus of claim 1 wherein the interface is adapted to be coupled to an expansion slot of a PC.

14. The apparatus of claim 13 wherein the interface has a PCI or ISA form factor.

15. The apparatus of claim 14 wherein the interface comprises a portion of a modem circuit or sound card.

16. The apparatus of claim 1 wherein the interface is a serial port, a parallel port, or a Universal Serial Bus port.

17. The apparatus of claim 16 wherein the interface comprises a portion of a modem circuit.

18. A method of selectively coupling an analog telephone circuit to either a telephone network or an Internet telephony service, the method comprising:

providing apparatus adapted to be coupled to a PC, an analog telephone circuit, and a telephone network, the apparatus including an interface, a DTMF interface circuit and a switch coupled to the telephone and the DTMF interface circuit, the switch having a first position wherein the telephone is coupled to the telephone network and a second position wherein the telephone is coupled to the interface, the switch responsive to detection of a predetermined sequence of DTMF digits by the DTMF interface circuit;

coupling the apparatus to a PC, an analog telephone circuit, and the telephone network; and

if it is desired to connect to the telephone network, dialing a telephone number while the switch is in the first position;

if it is desired to place an Internet-based telephone call, entering the predetermined sequence of

DTMF digits to cause the switch to move to the second position.

19. The method of claim 18 further comprising, after entering the predetermined sequence of DTMF digits, launching an Internet-based telephony application on the PC.

20. The method of claim 18 further comprising establishing an Internet-based telephone call.

21. The method of claim 18 further comprising, during the pendency of an Internet-based telephone call:  
receiving a call-waiting signal that there is an incoming call on the first telephone network line; and  
generating a user-perceptible signal responsive to receipt of the call-waiting signal.

22. The method of claim 21 further comprising:  
entering the predetermined sequence of DTMF digits to cause the switch to move from the second to the first position; and  
accepting the incoming call.

23. The method of claim 18 wherein the apparatus further comprises a ring detection circuit, the method further comprising during the pendency of an Internet-based telephone call:

receiving an incoming call on the telephone network;

detecting the incoming call on the telephone network using the ring detection circuit; and

generating a user-perceptible signal responsive to an output of the ring detection circuit.

24. The method of claim 23 further comprising:  
entering the predetermined sequence of DTMF  
digits to cause the switch to move from the second to the  
first position; and  
accepting the incoming call on the telephone  
network..

25. The method of claim 24 further comprising,  
during the pendency of the call on the telephone network:  
entering the predetermined sequence of DTMF  
digits to cause the switch to move from the first to the  
second position; and  
resuming the Internet-based telephone call.

26. A telephone comprising:  
a jack adapted to be coupled to a telephone  
network;  
an analog telephone circuit;  
a microprocessor;  
a modem coupled to the microprocessor; and  
a switching circuit having a first position  
wherein the analog telephone circuit is coupled to the  
jack for transmitting and receiving analog voice signals  
over the telephone network, and a second position wherein  
the analog telephone circuit is coupled to the jack  
through the microprocessor and modem for transmitting  
digitized voice signals over the Internet.

27. The telephone of claim 26 further  
comprising a digital signal processor.

28. The telephone of claim 26 further  
comprising a coding/decoding circuit.

29. The telephone of claim 26 further comprising a subscriber line interface circuit coupled between the analog telephone circuit and the microprocessor.

30. The telephone of claim 26 further comprising circuitry for detecting a call waiting signal.

31. The telephone of claim 26 further comprising circuitry for detecting a ring signal.

32. The telephone of claim 26 further comprising a button, and the switching circuit moves between the first and second positions responsive to actuation of the button.

33. A method of selectively coupling an analog telephone circuit to either a telephone network or an Internet telephony service, the method comprising:

providing apparatus adapted to be coupled to a telephone line, the apparatus including a jack, an analog telephone circuit, a microprocessor, a modem, and a switching circuit, the switching circuit having a first position wherein the analog telephone circuit is coupled to the jack for transmitting and receiving analog voice signals over the telephone network, and a second position wherein the analog telephone circuit is coupled to the jack through the microprocessor and modem for transmitting digitized voice signals over the Internet;

coupling the jack to the telephone line; and  
if it is desired to connect to the telephone network, dialing a telephone number while the switching circuit is in the first position;

if it is desired to place an Internet-based

telephone call, actuating the switching circuit to cause the switching circuit to move to the second position.

34. The method of claim 33 further comprising, after moving the switching circuit to the second position, executing an Internet-based telephony application by the microprocessor.

35. The method of claim 33 further comprising establishing an Internet-based telephone call.

36. The method of claim 33 further comprising, during the pendency of an Internet-based telephone call:  
receiving a call-waiting signal that there is an incoming call; and  
generating a user-perceptible signal responsive to receipt of the call-waiting signal.

37. The method of claim 36, wherein the telephone further comprises a button coupled to the switching circuit, the method further comprising:  
actuating the button to cause the switching circuit to move from the second to the first position;  
and  
accepting the incoming call.

38. The method of claim 37 further comprising, after accepting the incoming call, actuating the button again to return to the Internet-based telephone call.

39. The method of claim 33 further comprising, during the pendency of an Internet-based telephone call:  
receiving a ring signal that there is an incoming call; and

generating a user-perceptible signal responsive to receipt of the ring signal.

40. The method of claim 39, wherein the telephone further comprises a button coupled to the switching circuit, the method further comprising:

actuating the button to cause the switching circuit to move from the second to the first position;  
and

accepting the incoming call.

41. The method of claim 40 further comprising, after accepting the incoming call, actuating the button again to return to the Internet-based telephone call.

42. A module for selectively using a telephone to place calls via the Internet or PSTN network, the module comprising:

a first jack adapted to be coupled to an analog telephone;

a second jack adapted to be coupled to a telephone network;

a microprocessor;

a modem coupled to the microprocessor; and

a switching circuit having a first position wherein first jack is coupled to the second jack for transmitting and receiving analog voice signals from an analog telephone over the telephone network, and a second position wherein the first jack is coupled to the second jack through the microprocessor and modem for transmitting digitized voice signals over the Internet.

43. The module of claim 42 further comprising a digital signal processor.



44. The module of claim 42 further comprising a coding/decoding circuit.

45. The module of claim 42 further comprising a subscriber line interface circuit coupled between the first jack and the microprocessor.

46. The module of claim 42 wherein the modem further comprises circuitry for detecting a call waiting signal.

47. The module of claim 42 wherein the modem further circuitry for detecting a ring signal.

48. The module of claim 42 further comprising a button, and the switching circuit moves between the first and second positions responsive to actuation of the button.

49. A method of selectively coupling an analog telephone to either a telephone network or an Internet telephony service, the method comprising:

providing apparatus adapted to be coupled to an analog telephone via a first jack and a telephone line via a second jack, a microprocessor, a modem, and a switching circuit, the switching circuit having a first position wherein the first jack is coupled to the second jack for transmitting and receiving analog voice signals from an analog telephone over the telephone network, and a second position wherein the first jack is coupled to the second jack through the microprocessor and modem for transmitting digitized voice signals over the Internet;  
coupling the first jack to a telephone;  
coupling the second jack to a telephone line;

and

if it is desired to place a telephone call using the telephone network, dialing a telephone number while the switching circuit is in the first position; and  
if it is desired to place an Internet-based telephone call, actuating the switching circuit to cause the switching circuit to move to the second position.

50. The method of claim 49 further comprising, after moving the switching circuit to the second position, executing an Internet-based telephony application by the microprocessor.

51. The method of claim 49 further comprising establishing an Internet-based telephone call.

52. The method of claim 49 further comprising, during the pendency of an Internet-based telephone call:  
receiving a call-waiting signal that there is an incoming call; and  
generating a user-perceptible signal responsive to receipt of the call-waiting signal.

53. The method of claim 52, wherein the telephone further comprises a button coupled to the switching circuit, the method further comprising:  
actuating the button to cause the switching circuit to move from the second to the first position;  
and

accepting the incoming call.

54. The method of claim 52 further comprising, after accepting the incoming call, actuating the button again to return to the Internet-based telephone call.

55. The method of claim 49 further comprising, during the pendency of an Internet-based telephone call:

receiving a ring signal that there is an incoming call; and

generating a user-perceptible signal responsive to receipt of the ring signal.

56. The method of claim 55, wherein the telephone further comprises a button coupled to the switching circuit, the method further comprising:

actuating the button to cause the switching circuit to move from the second to the first position; and

accepting the incoming call.

57. The method of claim 56 further comprising, after accepting the incoming call, actuating the button again to return to the Internet-based telephone call.